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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,806	07/21/2006	Olivier J.M. Hus	GB04 0025 US1	9055

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EXAMINER
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SARWAR, BABAR

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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10/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,806	<b>Applicant(s)</b> HUS ET AL.	
	<b>Examiner</b> BABAR SARWAR	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/21/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 3** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Consider **Claim 3**, the claim recites the limitation "the same indicia" in line 2.

There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-20** are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 2002/0003798A1), hereinafter referenced as Sato.

Consider **claim1**, Sato discloses a method of operating a packet data multicast communication system comprising a first station (information delivery apparatus) and a plurality of second stations (wireless terminals A-D, H-L), the first and second stations having transceiving equipment (fig. 2, 3) for communication between the first and

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second stations (Abstract, Para 0005, 0006, 0014, 0057-0059, exhibited in figs. 1-3).

Sato further teaches that the method comprises the first station transmitting a data packet and at least one of the plurality of the second stations receiving the data packet (Para 0014), characterized by the at least one of the plurality of the second stations measuring the quality of reception of the received data packet (Para 0026, 102), and determining into which one of at least three predetermined quality ranges the measured quality falls wherein the first station adopts a respective subsequent transmitter behavior in response to each of the at least three predetermined quality ranges (Para 0026, 0065-0069, 0077-0078, 0088-0089, 0102, exhibited in figs. 1-3, 4, 6, 10, 15, where Sato teaches Transmission rates T1-T5 i.e. predetermined quality ranges). Sato discloses that the subsequent transmitter behavior corresponding to at least two non-contiguous ones of the quality ranges is identical (Para 0006, 0072, 0077-0078, 0088-0089, exhibited in figs. 4, 8, 11, 13, 17, where Sato discloses mobile terminals A-D, H-L. The mobile terminals A-D, and H-L are non-contiguous for different transmission rates and reception qualities; moreover they receive the same multicast data from the information delivery apparatus i.e. the transmitter behavior is identical for non-contiguous quality ranges).

Consider **claim 2**, Sato discloses everything claimed as implemented above (see claim 1). In addition, Sato teaches that the method characterized by the second station transmitting indicia representative of the quality ranges other than said at least two non-contiguous quality ranges (Para 0026, 0077-0078, 0088-0089, and 0102, where Sato

teaches that modulation schemes correspond to reception quality reported from the wireless terminals i.e. the feedback or indicia from the mobile terminals).

Consider **claim 3**, Sato discloses everything claimed as implemented above (see claim 2). In addition, Sato teaches that the method characterized by the second station transmitting the same indicia in respect of each of the at least two non-contiguous quality ranges (Para 0026, 0077-0078, 0088-0089, and 0102, where Sato teaches that modulation schemes correspond to reception quality reported from the wireless terminals i.e. the feedback or indicia from the mobile terminals).

Consider **claim 4**, Sato discloses everything claimed as implemented above (see claim 1). In addition, Sato teaches that the method characterized in that the at least two non-contiguous quality ranges are the best and the worst quality ranges (Para 0006, 0077-0078, 0088-0089, and exhibited in figs. 4, 6, 10, 15, where Sato teaches different Transmission rates T1-T5 i.e. best and worst).

Consider **claim 5**, Sato teaches everything claimed as implemented above (see claim 1). In addition, Sato discloses that the method wherein the measuring of the quality of reception of the received data packet is characterized by comparison of a measure of a predetermined quality metric of a received signal with at least three quality ranges (Para 0026, 0077-0078, 0088-0089, 0102, figs. 10, 15, where Sato discloses different transmission rates listed in the table.)

Consider **claim 6**, Sato teaches everything claimed as implemented above (see claim 5). In addition, Sato discloses that the method characterized in that the quality

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ranges are defined by threshold values applied by respective second stations (Para 0026, 0088-0089, 0102, figs. 10, 15).

Consider **claim 7**, Sato teaches everything claimed as implemented above (see claim 5). In addition, Sato discloses that the method characterized in that the quality ranges are defined by threshold values signaled to the second stations by the first station (Para 0026, 0088-0089, 0102, figs. 10, 15).

Consider **claim 8**, Sato teaches everything claimed as implemented above (see claim 5). In addition, Sato discloses that the method characterized in that the predetermined quality metric comprises at least one of:  $E_b/N_0$  (energy per bit/ noise density); the number of data packets received successfully in a predetermined time window; the proportion of data packets previously received correctly out of a group of predetermined number of packets; and the received SIR (Signal to Interference Ratio) or SNR (Signal to Noise Ratio) of another received signal (Para 0024, 0025, and 0059, where Sato teaches that reception quality includes a reception level, an interference level, a noise level, and an error rate).

Consider **claim 9**, Sato teaches everything claimed as implemented above (see claim 8). In addition, Sato discloses that the method characterized in that the quality of reception of the received data packet is determined during a predetermined duration (Para 006, 0026, 0077-0078, 0088-0089, 0102, figs. 10, 15).

Consider **claim 10**, Sato teaches everything claimed as implemented above (see claim 1). In addition, Sato discloses that the method characterized in that the first station adjusts one or more transmission parameters to ensure that at least a predetermined

percentage of secondary stations receive a data packet data service satisfactorily (Para 0077-0078, 0088-0089, 0102, figs. 10, 15).

Consider **claim 11**, Sato teaches everything claimed as implemented above (see claim 10). In addition, Sato discloses that the method characterized in that the transmission parameters comprise one or more of: number of retransmissions; transmit power; spreading factor; code rate; and modulation scheme (Para 0061-0069, 0077-0078, 0088-0089, 0102, figs. 4-15).

Consider **claim 12**, Sato teaches everything claimed as implemented above (see claim 2). In addition, Sato discloses that the method characterized in that different of the indicia are distinguished by transmission at different times (Para 0077-0078, 0088-0089, 0102, figs. 10, 15, where Sato discloses mobile terminals reporting reception quality and the base station transmitting multicast data at different transmission rates).

Consider **claim 13**, Sato teaches everything claimed as implemented above (see claim 2). In addition, Sato discloses that the method characterized in that different of the indicia are distinguished by different code words (Para 0077-0078, 0088-0089, 0102, figs. 10, 15, where Sato discloses mobile terminals reporting reception quality and the base station transmitting multicast data at different transmission rates).

Consider **claim 14**, Sato teaches everything claimed as implemented above (see claim 2). In addition, Sato discloses that the method characterized in that different of the indicia are distinguished by different frequency channels (Para 0066-0072, 0077-0078, 0088-0089, 0102, figs. 6, 10, 15, where Sato discloses mobile terminals reporting

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reception quality and the base station transmitting multicast data at different transmission rates).

Consider **claim15**, Sato discloses a packet data multicast communication system comprising a first station (information delivery apparatus) and a plurality of second stations (wireless terminals A-D, H-L), the first and second stations having transceiving equipment for communication between the first and second stations (Abstract, Para 0005, 0006, 0014, 0057-0059, exhibited in figs. 1-3), Sato further teaches that the first station having means (Para 0057, fig. 2) for transmitting data packet, and the second stations having means for receiving the data packet (Para 0034, 0058, 0059, fig. 3), characterized by the second stations having means for measuring the quality of reception, and means for determining into which one of at least three predetermined quality ranges the measured quality falls (Para 0026, 0034, 0058, 0059, 0077-0078, 0088-0089, fig. 3, 10, and 15). Sato teaches that the first station has means for adopting a respective subsequent transmitter behavior in response to each of the at least three predetermined quality ranges, and the subsequent transmitter behavior corresponding to at least two non-contiguous ones of the quality ranges being identical (Para 0006, 0057, 0072, 0077-0078, 0088-0089, exhibited in figs. 2, 4, 8, 11, 13, 17, where Sato discloses mobile terminals A-D, H-L. The mobile terminals A-D, and H-L are non-contiguous for different transmission rates and reception qualities; moreover they receive the same multicast data from the information delivery apparatus i.e. the transmitter behavior is identical for non-contiguous quality ranges).



Consider **claim 16**, Sato teaches everything claimed as implemented above (see claim 15). In addition, Sato discloses that the system characterized in that the means for measuring the quality of reception is adapted to compare a measure of a predetermined quality metric of a received signal with at least three quality ranges (Para 0026, 0057 0059, 0077-0078, 0088-0089, 0102, figs. 2, 10, 15, where Sato discloses different transmission rates listed in the table.) .

Consider **claim 17**, Sato teaches everything claimed as implemented above (see claim 15). In addition, Sato discloses that the system characterized in that the first station has means for adjusting one or more transmission parameters to ensure that at least a predetermined percentage of second stations receive a data packet (Para 0057, 0077-0078, 0088-0089, 0102, figs. 2, 10, 15).

Consider **claim 18**, Sato teaches everything claimed as implemented above (see claim 17). In addition, Sato discloses that the system characterized in that the transmission parameters comprise one or more of: number of retransmissions; transmit power; spreading factor; code rate; or modulation scheme (Para 0057, 0061-0069, 0077-0078, 0088-0089, 0102, figs. 2, 4-15).

Consider **claims 19**, the limitations of claim 19 are similar to those of claims 1, and 15. Therefore claim 19 is interpreted and thus rejected for the same reasons implemented in the rejections of claims 1, and 15.

Consider **claims 20**, Sato teaches everything claimed as implemented above (see claim 19). In addition, the limitations of claim 20 are similar to those of claims 5,

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and 16. Therefore claim 20 is interpreted and thus rejected for the same reasons implemented in the rejections of claims 5, and 16.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BABAR SARWAR whose telephone number is (571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY 09:30 A.M -05:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/NICK CORSARO/

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Examiner, Art Unit 2617  
October 22, 2008

Supervisory Patent Examiner, Art  
Unit 2617